

Conference Program

ITQM

2020&2021

*8th International Conference on Information
Technology and Quantitative Management*

Southwest Minzu University, Chengdu, China

July 9-11, 2021



ITQM The International Academy of
International Academy Information Technology and Quantitative Management

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Special Notification

Due to the COVID-19 pandemic, this conference is held in a **hybrid online and offline setting**. Any online reports, including keynote/plenary speeches or oral presentations of papers in sessions and workshops, have to be conducted using the **VooV Meeting**. This software is the **overseas version of Tencent Meeting** and can be downloaded from <https://voovmeeting.com/index.html> with detailed instructions for installation and usage.

Domestically online participants can use Tencent Meeting directly. All online reports in this program are scheduled based on **Beijing time (GMT+08:00)**. Online participants need to download and install the **VooV Meeting** firstly. Then open the software, click “Join”, enter the room ID to attend the conference online **OR** click the link (below the room ID), click “Join Now”, then the browser will open the software and join the meeting room automatically. If you have a presentation, you also need to share your screen in the meeting room.



ITQM 2020 & 2021 AT A GLANCE

Friday, 9 July

08:00-09:15	Registration Onsite (Xinxing Theater)
09:15-10:00	Opening Session & Group Photo (Xinxing Theater)
10:00-10:45	Keynote Speech I, Weixuan Xu (Xinxing Theater)
10:45-11:30	Keynote Speech II, Jian Chen (Xinxing Theater)
11:30-13:30	Break & Lunch
13:30-14:15	Plenary Speech I, Edmundas Kazimieras Zavadskas and Zenonas Turskis (Xinxing Theater)
14:15-15:00	Keynote Speech III, Roman Słowiński (Xinxing Theater)
15:00-15:30	Break
15:30-17:30	Parallel Sessions and Workshops, See Detailed Schedule (Huizhi Building)
17:30-18:00	Break
18:00-21:30	Banquet and IAITQM Awards Ceremony, See Detailed Schedule (Holiday Inn Chengdu Airport)

Saturday, 10 July

08:00-12:30	Parallel Sessions and Workshops, See Detailed Schedule (Huizhi Building)
12:30-13:30	Break & Lunch
13:30-17:30	Parallel Sessions and Workshops, See Detailed Schedule (Huizhi Building)
17:30-19:00	Break & Dinner
19:00-19:45	Plenary Speech II, Jiming Liu (Huizhi Building)
19:45-20:30	Plenary Speech III, Cheng-few Lee (Huizhi Building)
20:30-21:15	Keynote Speech IV, Felisa Córdova (Huizhi Building)
21:15-22:15	A Session, See Detailed Schedule (Huizhi Building)

Sunday, 11 July

08:30-11:30	Parallel Sessions and Workshops, See Detailed Schedule (Huizhi Building)
11:30-14:00	Break & Lunch
14:00-16:00	Local Tour to Museum of Southwest Minzu University (Optional)



General Information

- Registration Time**

Friday, 9 July, 8:00-09:15

If there's any special need about any certificate or invoice, please contact iaitqm@163.com.

- Banquet and IAITQM Awards Ceremony**

Friday, 9 July, 18:00-21:30

Venue: Holiday Inn Chengdu Airport (No.62, Airport South Fourth Road, Shuangliu District, Chengdu)

Awards Arrangement:

Award	Daniel Berg Award	Richard Price Award	Walter Scott Award
Presented by	Yubin Liu	Jianping Li	Yong Wang
Award	Siwei Cheng Award	Conference Organization Award	Herbert Simon Award
Presented by	Daji Ergu	Yong Shi	Gang Kou

- Local Tour (Optional)**

Sunday, 11 July, 14:00-16:00

Museum of Southwest Minzu University

- Instruction for Speaker**

Keynote/Plenary Speech: 45 minutes

Oral presentation of each paper: 10 minutes

- Special Notification**

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Welcome Message from Conference Organizers

Welcome to the Eighth International Conference on Information Technology and Quantitative Management (ITQM 2020 & 2021), July 9-11, Chengdu, China. The theme of ITQM 2020 & 2021 is “**Developing Global Digital Economy after COVID-19**”. ITQM 2020 & 2021 is organized by International Academy of Information Technology and Quantitative Management (IAITQM), Southwest Minzu University, Chinese Academy of Sciences and University of Nebraska at Omaha.

IAITQM was formally inaugurated on June 3, 2012 with more than 50 founding members from China, United States, Australia, Japan, Lithuania, Poland, Romania, Spain, Singapore, South Korea, The Netherlands, Turkey and other countries. The International Conference on Information Technology and Quantitative Management (ITQM), established by IAITQM, is a global forum for exchanging research findings and case studies that bridge the latest information technology and quantitative management techniques. It explores how the use of information technology techniques to improve quantitative management and how the development of management tools can reshape the development of information technology. The First International Conference on Information Technology and Quantitative Management (ITQM 2013) took place in Suzhou, China. The Second International Conference on Information Technology and Quantitative Management (ITQM 2014) was held in Moscow, Russia. The Third International Conference on Information Technology and Quantitative Management (ITQM 2015) was held at Rio de Janeiro, Brazil. The Forth International Conference on Information Technology and Quantitative Management (ITQM 2016) was held at Asan, Korea. The Fifth International Conference on Information Technology and Quantitative Management (ITQM 2017) was held at New Delhi, India. The Sixth International Conference on Information Technology and Quantitative Management (ITQM 2018) was hosted at Omaha, USA. The Seventh International Conference on Information Technology and Quantitative Management (ITQM 2019) was held at Granada, Spain.

ITQM 2020 & 2021 covers all topics in the broad ranges of Information Technology and Quantitative Management, including but not limited to:

- Advances in B2B, B2C and C2C Environments
- Advances in Quality Management
- Agricultural Markets and International Trade
- Artificial Intelligence
- Asset Pricing
- Banking regulation and financial services
- Big data and Deep learning
- Big data in finance
- Brands and Consumer Behavior



- Business Analytics Tools
- Commodity and Product Pricing
- Contemporary Leadership issues
- Corporate finance and capital structure
- Data Mining and Data Warehousing
- Data Science
- Digital Learning and Organization
- Digital Marketing
- Employability Skills and Talent Management
- Financial Econometrics
- Financial literacy and financial education
- Global Recession
- Human Resource Management
- Investment management
- IoT (Internet of Things)
- IT-enabled quantitative management
- Management of Technology
- Managing Global Value Chains
- Market Volatility and Financial Innovation
- Mobile technologies and cloud computing
- Multicriteria Analysis related to IT-enabled quantitative management
- Neuro Marketing
- Quantitative management tools
- Semantic learning and intelligent awareness
- Service Operations Management
- Social Media
- Social Media and Mobile Marketing
- Soft computing methods
- Sustainability Issues in Trade
- Sustainable Supply Chain Management
- Technology for Training and Development
- Technology in Banking and Insurance
- Web intelligence



ITQM 2020 & 2021 will focus on technical exchanges within the research community, encompassing some invited keynote lectures, special sessions and workshops.

At ITQM 2020 & 2021, we have invited the following 4 world leading keynote speakers to give their current and future visions about Information Technology and Quantitative Management:

- Roman Słowiński, Systems Research Institute, Polish Academy of Sciences, 01-447 Warsaw, Poland
“Dominance-based Rules: A Preference Model Induced from Data”
- Weixuan Xu, Institute of Science and Development, Chinese Academy of Sciences, Beijing 100190, China
“Scientific Achievements Analysis on “China Issues” in Management Science”
- Felisa Córdova, Director of the School of Engineering, University Finis Terrae, Chile
“Knowledge Management Trends and Perspectives in Organizations and Ecosystems”
- Jian Chen, Lenovo Chair Professor and Chairman of Management Science Department, Director of Research Center for Contemporary Management, Tsinghua University, China
“Signaling Quality with Return Insurance: Theory and Empirical Evidence”

In addition, we have also invited another 3 famous scholars as plenary speakers to present their research findings:

- Cheng-few Lee, Distinguished Professor of Finance and Economics at Rutgers University, USA
“Generalized Dividend Behavior Model and Dividend Smoothing: Theory and Empirical Evidence”
- Edmundas Kazimieras Zavadskas, Professor, Chief Researcher of Institute of Sustainable Construction, Faculty of Civil Engineering, Vilnius Gediminas Technical University, Lithuania
“Development of TOPSIS Method to Solve Complicated Decision-Making Problems: An Overview on Developments from 2000 to 2015”
- Jiming Liu, Chair Professor in Computer Science, Hong Kong Baptist University, Hong Kong, China
“Computational Epistemology and Its Application in Fighting COVID-19”

There are more than **500 scholars and students** from **21 countries and regions** submitted their papers to ITQM 2020 & 2021. The authors are from **Australia, Brazil, Chile, China, Colombia, France, Greece, India, Mexico, Nigeria, Poland, Portugal, Romania, Russia, Serbia, South Africa, South Korea, Spain, United Kingdom, United States and Uzbekistan**. After peer-review process, we have accepted **197 high-quality papers** from all submitted papers for presentation at the conference. These papers are published by Elsevier in their *Procedia Computer Science* series. This conference is allocated into **1 General Session, 6 Special Sessions and 17 Workshops**.

Like previous conferences, ITQM 2020 & 2021 relies strongly on the vital contributions of our workshop organizers to attract high quality papers in many subject areas. Here we would like to thank all special sessions and workshops organizers, all ITQM committee



members and reviewers for their contribution to ensure a high standard for the accepted papers. We would like to express our gratitude to the conference committees for their enthusiastic work towards the success of ITQM 2020 & 2021. We owe special thanks to our sponsors for their generous support, they are:

- China Science Center of International Eurasian Academy of Sciences (IEAS)
- Southwest Minzu University, China;
- University of Nebraska at Omaha, USA;
- Research Center on Fictitious Economy and Data Science, Chinese Academy of Sciences
- Key Lab of Big Data Mining and Knowledge Management, Chinese Academy of Sciences
- School of Economics and Management, University of Chinese Academy of Sciences
- Institute of Science and Development, Chinese Academy of Sciences
- Business Intelligence Society, Chinese Academy of Management
- Tianfu International Institute of Big Data Strategy and Technology

We wish all of you a very successful and enjoyable conference at Chengdu!

July 9-11, Chengdu, China



Keynote/Plenary Speeches, Special Sessions and Workshops

Keynote/Plenary Speeches

Keynote Speech I

Friday, 9 July, 10:00—10:45

Room: Xinxing Theater

VooV Meeting Room ID:

651 159 620

Link: <https://meeting.tencent.com/s/I9o0EVI9DzMx>

Scientific Achievements Analysis on “China Issues” in Management Science

Speaker: Weixuan Xu

Institutes of Science and Development, Chinese Academy of Sciences, Beijing, China

Host: Jianping Li

Abstract: During the last 40 years, the field of management science in China has made great progress. Several important achievements have been published in the top journals and produced crucial influences on the national economy and social development. Based on the FMS Journal Rating Guide published by Federation of Management Societies of China, this report focuses on the high-level achievements published in the top journals (rating A) with China's management practice (“China Issues”) as the research background. It summarizes the current mainstream research directions, key research topics and hot research trends of “China Issues” in the field of management science and some insights from them.

Speaker Biography: Professor Weixuan Xu is one of the earliest domestic scholars to conduct academic communication with the international industrial engineering community and made important contributions to promote the communication between China's industrial engineering and international counterparts

with his influence among international peers. He graduated from the Department of Mathematics, Sun Yat-Sen University in 1964 and studied for postgraduate under the tutelage of Professor Loo-Keng Hua in the Department of Mathematics, University of Science and Technology of China from 1964 to 1968. He received the doctorate degree in OR/MS from the University of Maryland in 1984. He used to be the director of the Institute of Science and Technology Policy and Management Science of the Chinese Academy of Sciences, the Chairman of the Chinese Society of Optimization, Overall Planning and Economic Mathematics and also a senior judge of the Management Science Department of the National Natural Science Foundation of China. As the main participant, he was awarded the first prize (1988) and the second prize (1992) of the National Science and Technology Progress Award respectively, as well as a number of provincial and ministerial science and technology progress awards. In 1994, he was awarded the National Young and Middle-aged Expert with Outstanding Contributions.

Keynote Speech II

Friday, 9 July, 10:45—11:30

Room: Xinxing Theater

VooV Meeting Room ID:

651 159 620

Link: <https://meeting.tencent.com/s/I9o0EVI9DzMx>

Signaling Quality with Return Insurance: Theory and Empirical Evidence

Speaker: Jian Chen

Lenovo Chair Professor and Chairman of Management Science Department, Director of Research Center for Contemporary Management, Tsinghua University, Beijing, China

Host: Yong Shi



Abstract: This talk examines an innovative return policy, return insurance, emerging on various shopping platforms such as Taobao.com and JD.com. Return insurance is underwritten by an insurer and can be purchased by either a retailer or a consumer. Under such insurance, the insurer partially compensates consumers for their hassle costs associated with product return. We analyze the informational roles of return insurance when product quality is the retailer's private information, consumers infer quality from the retailer's price and insurance adoption, and the insurer strategically chooses insurance premiums.

We show that return insurance can be an effective signal of high quality. When consumers have little confidence about high quality and expect a significant gap between high and low qualities, a high-quality retailer can be differentiated from a low-quality retailer solely through its adoption of return insurance. We confirm, both analytically and empirically with a data set consisting of over 10,000 sellers on JD.com, that return insurance is more likely adopted by higher-quality sellers under information asymmetry. Furthermore, we find that the presence of the third party (i.e., the insurer) leads to double marginalization in signaling, which strengthens a signal's differentiating power and sometimes renders return insurance a preferred signal, in comparison with free return, whereby retailers directly compensate for consumers' return hassles. As an effective and costly signal of quality, return insurance may also improve consumer surplus and reduce product returns. Its profit advantage to the insurer is most pronounced under significant quality uncertainty.

This is a joint work with Chong Zhang and Man Yu.

Speaker Biography: Chen Jian is Lenovo Chair Professor and Chairman of Management Science Department, Director of Research Center for Contemporary Management, Tsinghua University. He received the B.Sc. degree in Electrical

Engineering from Tsinghua University, Beijing, China in 1983, and the M.Sc. and the Ph.D. degree both in Systems Engineering from the same University in 1986 and 1989 respectively. His main research interests include supply chain management, E-commerce, decision support systems and systems engineering. Dr. Chen has published over 200 papers in refereed journals and has been a principal investigator for more than 50 grants or research contracts with National Science Foundation of China, governmental organizations and companies. He has been invited to present several plenary lectures at international conferences. He has been elected to IEEE Fellow (2008). He serves as Chairman of the Service Systems and Organizations Technical Committee of IEEE Systems, Man and Cybernetics Society, and Vice President of Management Science and Engineering of China (2017--present). He also serves as Editor-in-Chief/Senior Editor/Editorial Board Member for many international journals.

Plenary Speech I

Friday, 9 July, 13:30—14:15

Room: Xinxing Theater

VooV Meeting Room ID:

651 159 620

Link: <https://meeting.tencent.com/s/I9o0EVI9DzMX>

Development of TOPSIS Method to Solve Complicated Decision-Making Problems: An Overview on Developments from 2000 to 2015

Speaker: Edmundas Kazimieras Zavadskas (presented by Zenonas Turskis)

PhD, DSc, Dr. habil., Dr H. C. multi, Prof. Chief researcher of Institute of Sustainable Construction, Faculty of Civil Engineering, Vilnius Gediminas Technical University, Lithuania

Host: Gang Kou

Abstract: In recent years, several previous scholars attempted to develop, extend, propose and apply Technique for Order of



Preference by Similarity to Ideal Solution (TOPSIS) for solving problems in decision-making issues. Indeed, there are questions, how TOPSIS can help for solving these problems? Alternatively, does TOPSIS solved decision-making problems in the real world? Therefore, this study shows the recent developments of the TOPSIS approach, which previous scholars present. There are 105 reviewed papers to achieve this objective, which developed, extended, proposed, and presented the TOPSIS approach for solving DM problems. The study results indicated that 49 scholars have extended or developed the TOPSIS technique, and 56 scholars have proposed or presented new modifications for problems solution related to the TOPSIS technique from 2000 to 2015. In addition, the results of this study indicated that previous studies have modifications related to this technique in 2011 more than other years.

Speaker Biography: Edmundas Kazimieras Zavadskas, PhD, DSc, Dr. habil., Dr H. C. multi, Prof. Chief researcher of Institute of Sustainable Construction, Faculty of Civil Engineering, Vilnius Gediminas Technical University, Lithuania. PhD in building structures (1973). Dr Sc. (1987) in building technology and management. Dr Habil (1993). Founder Vilnius Gediminas Technical University (1990). A member of the Lithuanian Academy of Science; A member of several foreign Academies of Sciences; Honorary doctor from Poznan, Saint-Petersburg, and Kyiv universities. A member of international organizations; a member of steering and program committees at many international conferences; Chairman of EURO Working Group ORSDCE; associate editor, guest editor or editorial board member for 40 international journals (Computers-aided Civil and Infrastructure Engineering, Automation in Construction, Informatica, International Journal of Information Technology and Decision Making, Archives of Civil and Mechanical Engineering, International Journal of Fuzzy Systems, Symmetry,

Sustainability, Applied Intelligence, Energy, Entropy and other); the author and co-author of more than 600 papers and many monographs in Lithuanian, English, German and Russian. Founding editor of journals “Technological and Economic Development of Economy”, “Journal of Civil Engineering and Management”, “International Journal of Strategic Property Management”. He is a highly cited researcher in 2014, 2018, 2019 and 2020. His main research interests are multiple criteria decision-making, civil engineering, sustainable development, fuzzy multiple criteria decision-making.

Keynote Speech III

Friday, 9 July, 14:15—15:00

Room: Xinxing Theater

VooV Meeting Room ID:

651 159 620

Link: <https://meeting.tencent.com/s/I9o0EVI9DzMx>

Dominance-based rules: a preference model induced from data

Speaker: Roman Słowiński

Institute of Computing Science, Poznan University of Technology, 60-965 Poznan, Systems Research Institute, Polish Academy of Sciences, 01-447 Warsaw, Poland

Host: Yong Shi

Abstract: The aim of scientific decision aiding is to give the decision maker(s) a recommendation concerning a set of potential actions evaluated from multiple points of view considered relevant for the decision problem at hand. These multiple points of view can be: (i) multiple voters, or (ii) multiple evaluation criteria, or (iii) multiple states of the world. They are the cornerstones of the three big sub-disciplines of decision science: (i) group decision, (ii) multiple-criteria decision making, and (iii) decision under risk and uncertainty. Their common feature is the fact that the only objective information stemming from the



formulation of the corresponding decision problems is the dominance relation in the set of actions. As dominance relation is a partial weak order, it makes many actions non-comparable. To rank or classify the actions one needs to aggregate the multiple points of view, taking into account preferences of the decision maker(s) (DMs). The aggregation, which is equivalent to construction of the DMs' preference model, is a great challenge of scientific decision aiding. In this talk, I will show how this challenge has been solved with a set of dominance-based “if..., then...” decision rules discovered from the data by inductive learning. The data are training examples showing DMs' past decisions on a set of actions. As these examples can be inconsistent, it is convenient to structure the data prior to induction of rules using the Dominance-based Rough Set Approach (DRSA). DRSA is a methodology for reasoning about ordinal data, which extends the classical rough set approach by handling ordinal evaluations of actions and monotonic relationships between their evaluations. Since its conception, DRSA has been adapted to a large variety of decision problems. We present DRSA to preference discovery in case of multi-attribute classification, choice and ranking, in the case of evolutionary multi-objective optimization, and in the case of decision under uncertainty. The set of dominance-based decision rules has several advantages over its competitor preference models (utility functions, and outranking relations): (a) each rule is a readable scenario of a causal relationship between evaluations on a subset of attributes and a comprehensive judgment, (b) decision rules exploit ordinal information only and do not convert ordinal evaluation scales into numeric ones, (c) decision rules are non-compensatory aggregation operators, and (d) they are able to represent more complex interactions than Choquet and Sugeno integrals.

Speaker Biography: Roman Słowiński is a Professor and Founding Chair of the Laboratory of Intelligent Decision Support Systems at Poznań University of Technology, and a Professor in the Systems Research Institute of the Polish Academy of Sciences. As an ordinary member of the Polish Academy of Sciences he is its Vice President, elected for the term 2019-2022. He is a member of Academia Europaea and Fellow of IEEE, IRSS, INFORMS and IFIP. In his research, he combines Operational Research and Artificial Intelligence for Decision Aiding. Recipient of the EURO Gold Medal by the European Association of Operational Research Societies (1991), and Doctor HC of Polytechnic Faculty of Mons (Belgium, 2000), University Paris Dauphine (France, 2001), and Technical University of Crete (Greece, 2008). In 2005 he received the Annual Prize of the Foundation for Polish Science--the highest scientific honor awarded in Poland, and in 2020 the Scientific Award of the Prime Minister of Poland. Since 1999, he is the principal editor of the European Journal of Operational Research (Elsevier), a premier journal in Operational Research.

Plenary Speech II
Saturday, 10 July, 19:00—19:45

Room: Huizhi Building, H-101

VooV Meeting Room ID:

597 992 321

Link: <https://meeting.tencent.com/s/EKrkRjFKS140>

How Infectious Disease Modeling Can Impact Public Health Policy Making

Speaker: Jiming Liu

Dean of Science and the Chair Professor in Computer Science at Hong Kong Baptist University, Hong Kong, China

Host: Daji Ergu

Abstract: In this talk, Prof. Jiming Liu will share some of his stories in a journey of translating exciting data-driven modeling



research into socially impactful solutions in infectious disease control and prevention. He will discuss his team's ongoing efforts in developing and deploying data science and AI technologies for addressing some of the most pressing needs in public health policy making, while envisioning future computational and epidemiological challenges as well as opportunities ahead.

Speaker Biography: Prof. Jiming Liu is currently the Dean of Science and the Chair Professor in Computer Science at Hong Kong Baptist University (HKBU), where he founded the Joint Research Laboratory for Intelligent Disease Surveillance and Control (a partnership with the NIPD of Chinese Center for Diseases Control and Prevention) in 2013. He is a Fellow of the IEEE. Prof. Liu's research interests include Data-Driven Modeling, Machine Learning, Complex Networks, Autonomy-Oriented Computing and AI for Social Good. He has served as the Editor-in-Chief of Web Intelligence Journal (IOS), and the Associate Editor of Big Data and Information Analytics (AIMS), IEEE Transactions on Knowledge and Data Engineering, IEEE Transactions on Cybernetics and Computational Intelligence (Wiley), among others.

Plenary Speech III

Saturday, 10 July, 19:45—20:30

Room: Huizhi Building, H-101

VooV Meeting Room ID:

597 992 321

Link: <https://meeting.tencent.com/s/EKrKRjfKS14O>

Generalized dividend behavior model and dividend smoothing: Theory and empirical evidence

Speaker: Cheng-few Lee

Distinguished Professor of Finance and Economics at Rutgers University, USA; Editor in Chief of RQFA and RPBFP

Host: Jianping Li

Abstract: The main purpose of this study is to use generalized dividend behavior model proposed by Fama & Babiak (1968) and Lee et al. (1987) to re-examine previous dividend smoothing researches. This study proposes a dividend smoothing model that integrates two prevailing dividend hypotheses to evaluate the degree of dividend smoothing behaviors and investigates cross-sectional variation in determining a firm's propensity to smooth dividend. By using a sample of 1193 U.S. firms, we support the notion that dividend smoothing behaviors are driven by different channels. Our findings show that firms with a stronger monitoring mechanism or are subject to more agency conflicts will smooth dividend more through partial adjustment channel. Also, firms subject to higher information asymmetry or lower growth opportunity will smooth dividend more through the information content channel. In our additional analysis, we show that firms with greater accounting conservatism or poor financial reporting quality are prone to smooth dividends more driven by private information communication motives.

Speaker Biography: Prof. Cheng-Few Lee is a Distinguished Professor of Finance at Rutgers Business School, Rutgers University and was chairperson of the Department of Finance from 1988–1995. He has also served on the faculty of the University of Illinois (IBE Professor of Finance) and the University of Georgia. He has maintained academic and consulting ties in Taiwan (China), Hong Kong, China Mainland and United States for the past three decades. He has been a consultant to many prominent groups including the American Insurance Group, the World Bank, the United Nations, The Marmon Group Inc., Wintek Corporation, and Polaris Financial Group.

Prof. Lee founded the Review of Quantitative Finance and Accounting (RQFA) in 1990 and the Review of Pacific Basin Financial Markets and Policies (RPBFMP) in 1998, and serves as



managing editor for both journals. He was also a co-editor of the *Financial Review* (1985-1991) and the *Quarterly Review of Economics and Finance* (1987-1989). In the past 47 years, Dr. Lee has written numerous textbooks ranging in subject matters from financial management to corporate finance, security analysis and portfolio management to financial analysis, planning and forecasting, and business statistics. In addition, he edited two popular books, *Encyclopedia of Finance* (with Alice C. Lee) and *Handbook of Quantitative Finance and Risk Management* (with Alice C. Lee and John Lee). Dr. Lee has also published more than 220 articles in more than 20 different journals in finance, accounting, economics, statistics, and management. Professor Lee was ranked the most published finance professor worldwide during the period 1953-2008.

Prof. Lee was the intellectual force behind the creation of the new Masters of Quantitative Finance program at Rutgers University. This program began in 2001 and has been ranked as one of the top fifteen quantitative finance programs in the United States. Prof. Lee started the Conference on Financial Economics and Accounting. This conference is a consortium of Rutgers University, New York University, Temple University, University of Maryland, Georgia State University, Tulane University, Indiana University, and University of Toronto. This conference is the most well-known conference in finance and accounting.

Keynote Speech IV
Saturday, 10 July, 20:30—21:15

Room: Huizhi Building, H-101

VooV Meeting Room ID:

597 992 321

Link: <https://meeting.tencent.com/s/EKrKRjfKS14O>

Knowledge Management trends and perspectives in organizations and ecosystems

Speaker: Felisa Córdova

Director of the School of Engineering, University Finis Terrae, Chile

Host: Yong Shi

Abstract: This lecture takes an in depth look at knowledge management and organizational learning, as complex, ongoing processes and actions which aim to integrate knowledge, skills and attitudes to achieve changes, innovations, value creation, and behavioral improvements in organizations.

Considering that intangible assets, managed and measured appropriately, can be transformed into a source of sustainable competitive advantage, capable of providing value and benefits to the organization; the role of intellectual, structural and social capital present in organizations that are involved in different ecosystems is analyzed.

It is perceived today that companies that have a high intellectual capital are proposing strategic knowledge creation models, considering different stages of knowledge transformation, such as socialization, outsourcing, combination and internalization, also incorporating cultural factors, detection of opportunities and value-added proposals.

In this context, this work also presents different knowledge cycles, current knowledge management models and methods, as well as technological support tools, projects and systems to manage the experience accrued by the workforce in the organization, such as work teams, professionals and managers, that allow to safeguard, preserve and use the knowledge generated within the organization.

Applications of comprehensive systems oriented to business knowledge management strategies developed in companies of different sectors of the economy, are shown, which support the survival, feasibility and improvement of the long-term management decision-making process, based on knowledge and experience.



Finally, we analyze the main challenges and opportunities that companies and institutions will face operating in cyber, social, technological and cognitive spaces.

Speaker Biography: Graduated Electrical Engineer at the University of Santiago de Chile USACH. She obtained the Diplome d'Études Approfondies in Electronics and the degree of Docteur Ingénieur at the University of Paris XI, France. She is Professor and Director of the School of Engineering at the Faculty of Engineering, University Finis Terrae UFT, Santiago, Chile. She was professor, Academic Vice Rector and Director of the Industrial Engineering Department, at the Faculty of Engineering, University of Santiago de Chile USACH. She was also Director of the Master of Science Engineering Program and Header of Management Area of the Industrial Engineering Department of, at the Faculty of Physical and Mathematical Sciences at University of Chile. Her main research interest is in Business Strategy, Operations Management, and Knowledge Management. She has participated in several national and international research projects in the fields of Robotics, AGV and Virtual Operation Systems in underground mining, also in ports. She has published many papers in conference proceedings and international indexed journals in the area of Robotics, Knowledge and Operation Management, and Neuromanagement. She has participated in the organization of national and international Conferences (ACCA, LCA, LCR, SEPROSUL, ICPR, CESA). She was past-president of the Chilean Association of Automatic Control ACCA and she was national councilor, President of the Education Committee and past Vice President of the College of Engineers of Chile. She participated as an institutional accreditation evaluator at the CNA, Chile and also in the CEAB accreditation (Washington Accord) to engineering programs, Canada. She was member of the accreditation board and now she is member of the Directory of Acredita CI.

Special Sessions with Organizers

General Session: Main Track

- **Yong Shi** (College of Information Science and Technology, University of Nebraska at Omaha, USA, yshi@unomaha.edu; Chinese Academy of Sciences Research Center on Fictitious Economy and Data Science, Beijing 100190, China, yshi@ucas.ac.cn)
- **Fan Meng** (Peking University, China, mengfan@pku.edu.cn)

Special Session 01: Computer Supported Collaborative Decision-Making: Methods, Tools, Systems, and Applications

- **F. G. Filip** (The Romanian Academy, Bucharest, Romania, ffilip@acad.ro); (<https://acad.ro/cv/FilipF/FGF-CV-en.pdf>)
- **Cristian Ciurea** (Academy of Economic Studies-ASE, Bucharest Romania, cristian.ciurea@ie.ase.ro); (<https://orcid.org/0000-0002-7327-0007>)

Special Session 02: Intelligent Decision Making and Extenics based Innovation

- **Xingsen Li** (Guangdong University of Technology, China, lixingsen@126.com)
- **Yanwei Zhao** (Zhejiang University of Technology, China, zyw@zjut.edu.cn)
- **Baiqing Sun** (Harbin Institute of Technology, China, baiqingsun@hit.edu.cn)
- **Tao Wang** (Beijing Institute of Technology, China, wangtao1020@126.com)
- **Ping Yuan** (Professor, NIT, Zhejiang University, China, yuanping1212@163.com)

Special Session 03: Soft Computing Methods in Quantitative Management and Decision Making



- **Simona Dzitac** (Assoc. Professor at University of Oradea, Romania, simona@dzitac.ro)
- **Sorin Nadaban** (Aurel Vlaicu University of Arad, Romania, snadaban@gmail.com)
- **Bogdana Stanojevic** (Mathematical Institute of the Serbian Academy of Sciences and Arts, bgdnpop@mi.sanu.ac.rs)
- **Domnica Dzitac** (New York University Abu Dhabi, domnica.dzitac@nyu.edu)

Special Session 04: Modeling and Data collection for decision making in Finance Applications

- **A. M. Karminsky** (Higher School of Economics, MGIMO-U, Moscow, Russia, karminsky@mail.ru)
- **Massimiliano Caporin** (Department of Statistical Sciences, University of Padova, Italy, max.caporin@gmail.com)
- **M.I. Stolbov** (MGIMO-U, Moscow, Russia, stolbov_mi@mail.ru)

Special Session 05: Neuromanagement and Neuromarketing

- **Felisa M. Córdova** (School of Engineering, Faculty of Engineering, University Finis Terrae, Chile, fcordova@uft.cl)

Special Session 06: Intelligent Decision Support Systems

- **Enrique Herrera-Viedma** (University of Granada, Spain, viedma@decsai.ugr.es)
- **Francisco Chiclana** (De Montfort University, United Kingdom, chiclana@dmu.ac.uk)
- **Yucheng Dong** (Sichuan University, China, ycdong@scu.edu.cn)
- **Francisco Javier Cabrerizo** (University of Granada, Spain, cabrerizo@decsai.ugr.es)
- **Juan Antonio Morente** (University of Granada, Spain, jamoren@decsai.ugr.es)

- **Ignacio Javier Perez** (University of Cadiz, Spain, ignaciojavier.perez@uca.es)

Workshops with Organizers

Workshop 01: Outlier Detection in Financial Data Streams & Big Data and Management Science

- **Aihua Li** (Central University of Finance and Economics, China, aihuali@cufe.edu.cn)
- **Zhidong Liu** (Central University of Finance and Economics, China, liu_phd@163.com)
- **Fan Meng** (Peking University, China, mengfan@pku.edu.cn)

Workshop 02: Risk Scenario-based Decision Making: Methods and Applications

- **Weilan Suo** (Institutes of Science and Development, Chinese Academy of Sciences, China, suoweilan@casisd.cn)
- **Gang Li** (Northeastern University at Qinhuangdao, China, ligang@neuq.edu.cn)
- **Mingxi Liu** (Institutes of Science and Development, Chinese Academy of Sciences, China, liumingxi@casisd.cn)

Workshop 03: Optimization-based Data Mining

- **Yingjie Tian** (Chinese Academy of Sciences Research Center on Fictitious Economy and Data Science, Beijing 100190, China, tyj@ucas.ac.cn)
- **Zhiquan Qi** (Chinese Academy of Sciences Research Center on Fictitious Economy and Data Science, Beijing 100190, China, qizhiquan@ucas.ac.cn)
- **Yong Shi** (College of Information Science and Technology, University of Nebraska at Omaha, USA, yshi@unomaha.edu; Chinese Academy of Sciences)



Research Center on Fictitious Economy and Data Science,
Beijing 100190, China, yshi@ucas.ac.cn)

Workshop 04: Intelligent Control

- **Hao Chen** (College of Electrical Engineering, Southwest Minzu University, China, h.chen@swun.edu.cn)
- **Zhiyu You** (College of Electrical Engineering, Southwest Minzu University, China, youzhiyu@swun.edu.cn)
- **Yixian Chen** (College of Electrical Engineering, Southwest Minzu University, China, chenyx@swun.edu.cn)

Workshop 05: Multi-Source Data-Driven Financial Fraud Risk Analysis

- **Xiaoqian Zhu** (Institutes of Science and Development, Chinese Academy of Sciences, China, zhuxq@casipm.ac.cn)
- **Kun Guo** (School of Economics & Management, University of Chinese Academy of Sciences, China, guokun@ucas.ac.cn)
- **Jianping Li** (School of Economics & Management, University of Chinese Academy of Sciences, China, ljp@ucas.ac.cn)

Workshop 06: Digital Technologies, Digital Marketing, and Business Value

- **Xiaobo Xu** (Xi'an Jiaotong-Liverpool University, Suzhou, China, Xiaobo.Xu@xjtlu.edu.cn)
- **Fei Ma** (Chang'an University, Xi'an, China, mafeixa@chd.edu.cn)
- **Wenbin Sun** (Rockhurst University, Kansas City, MO, USA, wenbin.sun@rockhurst.edu)

Workshop 07: Business Intelligence

- **Chonghui Guo** (Institute of Systems Engineering, Dalian University of Technology, Dalian, China, dlutguo@dlut.edu.cn)

- **Kun Guo** (Key Laboratory of Big Data Mining and Knowledge Management, Chinese Academy of Sciences, Beijing 100190, China; Research Center on Fictitious Economy & Data Science, Chinese Academy of Sciences, Beijing 100190, China, guokun@ucas.ac.cn)
- **Yong Shi** (Key Laboratory of Big Data Mining and Knowledge Management, Chinese Academy of Sciences, Beijing 100190, China; Research Center on Fictitious Economy & Data Science, Chinese Academy of Sciences, Beijing 100190, China, yshi@ucas.ac.cn)

Workshop 08: Credit Risk Evaluation and Management

- **Jing Gu** (Sichuan University, China, gj0901@scu.edu.cn)

Workshop 09: The application of artificial intelligence in communication networks

- **Yang Qiu** (Southwest Minzu University, China, yqiu@swun.edu.cn)
- **ChuanWu Zhang** (Southwest Minzu University, China, zcw@swun.edu.cn)
- **Feng Miao** (Southwest Minzu University, China, fmiao@swun.edu.cn)

Workshop 10: After COVID-19, How Does Digital Empower Grassroots Governance?

- **Daneng Zhong** (Southwest Minzu University, China, zxyzxy1999@163.com)
- **YuKun Guo** (Southwest Minzu University, China, 77528934@qq.com)
- **Xingyu Qi** (Southwest Minzu University, China, 271991135@qq.com)
- **Xuan Zhang** (Southwest Minzu University, China, 823758362@qq.com)

Workshop 11: Intelligent Knowledge Management

- **Jifa Gu** (Academy of Mathematics and Systems Science of Chinese Academy of Sciences, China, jfgu@amss.ac.cn)



- **Lingling Zhang** (School of Economics and Management, University of Chinese Academy of Sciences, Research Center on Fictitious Economy & Data Science, Chinese Academy of Sciences, Beijing, 100190, China, zhangll@ucas.ac.cn)

Workshop 12: Scientific data analysis and decision making

- **Dengsheng Wu** (Institutes of Science and Development, Chinese Academy of Sciences, China, wds@casipm.ac.cn)
- **Qingsheng Pei** (Qinghai Institute of Animal Husbandry and Veterinary Science, China, mkypqs@163.com)
- **Jianping Li** (University of Chinese Academy of Sciences, China, ljp@ucas.ac.cn)

Workshop 13: District financial risk management and unstructured data mining

- **Gang Kou** (School of Business Administration, Southwestern University of Finance and Economics, Chengdu, China, kougang@swufe.edu.cn)
- **Daji Ergu** (College of Electronic & Information, Chengdu, Southwest Minzu University, China, ergudaji@163.com)
- **Yi Peng** (School of Economics and Management, University of Electronic Science and Technology of China, China, engyi@uestc.edu.cn)
- **Fangyao Liu** (College of Electronic & Information, Chengdu, Southwest Minzu University, China, fliu028@163.com)
- **Fan Wang** (Business School, Sun Yat-sen University, Guangzhou, China, fanwang@gmail.com)

Workshop 14: IoT and Digital Transformation

- **Xiaodan Yu** (University of International Business and Economics, China, xyu@uibe.edu.cn)
- **Reinhard Bernsteiner** (MCI, Management Center Innsbruck, Austria, reinhardchristian.bernsteiner@mci.edu)

Workshop 15: Artificial Intelligence and Value Creation

- **Taeho Park** (San Jose State University, USA, taeho.park@sjsu.edu)
- **Youngsik Kang** (Myongji University, Korea, yskang@mju.ac.kr)
- **Jinyoung Min** (Chosun University, Korea, saharamin@chosun.ac.kr)
- **Heeseok Lee** (KAIST College of Business, Korea, hsl@kaist.ac.kr)

Workshop 16: Computational Methods in Energy Economics

- **Lean Yu** (School of Economics and Management, Beijing University of Chemical Technology, Beijing, China, yulean@amss.ac.cn)
- **Kaijian He** (School of Business, Hunan University of Science and Technology, Xiangtan, China, kaijian.he@my.cityu.edu.hk)

Workshop 17: Risk Correlation Analysis and Risk Measurement

- **Jianping Li** (Institutes of Science and Development, Chinese Academy of Sciences, China, ljp@ucas.ac.cn)
- **Xiaolei Sun** (Institutes of Science and Development, Chinese Academy of Sciences, China, xlsun@casisd.cn)
- **Rongda Chen** (Zhejiang University of Finance & Economics, China, rongdachen@163.com)



Detailed Schedule

WS14: IoT and Digital Transformation

Chairs: Xiaodan Yu, Reinhard Bernsteiner

Friday, 9 July, 15:30—16:00

Room: Huizhi Building, H-101

VooV Meeting Room ID: 957 566 717

Link: <https://meeting.tencent.com/s/gGfRiBYhiHcS>

Food anti-counterfeiting traceability system based on Blockchain and Internet of Things (ID 92, Online)

Yi Lu, Peng Li and He Xu

Research on the evolution of the innovation ecosystem under the asset-light model: A case study of Xiaomi (China) (ID 8, Onsite)

Wu Zhao and Lei Yi

Exploring the role of IoT in project management based on Task-technology Fit model (ID 170, Onsite)

Hongyang Wang, Xiaotong Luo and Xiaodan Yu

IoT & IIoT Education Landing Cases Sharing (Special Talk)

Xuefeng Kang, PTC Greater China Education Engagement Lead

WS16: Computational Methods in Energy Economics

Chairs: Lean Yu, Kaijian He

Friday, 9 July, 16:00—16:50

Room: Huizhi Building, H-101

VooV Meeting Room ID: 957 566 717

Link: <https://meeting.tencent.com/s/gGfRiBYhiHcS>

Transmission between EU allowance prices and clean energy index (ID 214, Online)

Xunfa Lu, Kai Liu, Kin Keung Lai and Hairong Cui

Multiscale crude oil risk forecasting using a mode decomposition based model (ID 44, Onsite)

Kaijian He and Yingchao Zou

The price fluctuation in Chinese carbon emission trading market: New evidence from adaptive Fourier decomposition (ID 176, Onsite)

Jingyu Li, Ranran Liu and Qiwei Xie

Factors for China Automobile Demand Structure: Petroleum Prices or Tax Policies? (ID 181, Onsite)

Kai Lisa Lo, Yaqi Fan, Congzhi Zhang and Jinhong Jackson Mi

The influence of international crude oil spot price on the crude oil spot price in China (ID 182, Onsite)

Rong Guo, Yanhui Chen, Jinhong Jackson Mi and Kai Lisa Lo

WS11: Intelligent Knowledge Management

Chairs: Jifa Gu, Lingling Zhang

Friday, 9 July, 15:30—16:00

Room: Huizhi Building, H-102

VooV Meeting Room ID: 360 432 301

Link: <https://meeting.tencent.com/s/Q02EFMpTLE1B>

An analysis of persuasive narratives in Medical crowdfunding (ID 58, Onsite)

Junhong Wu, Chao Peng, Haomin Wang and Fang Da

Literature Review and Practice Comparison of Technology Foresight (ID 123, Onsite)

Minghui Zhao, Hanrui Ye, Yao Peng and Lingling Zhang

Movie Recommendation Algorithm Based on Sentiment Analysis and LDA (ID 133, Onsite)

Yilin Zhang and Lingling Zhang

WS17: Risk Correlation Analysis and Risk Measurement

Chairs: Jianping Li, Xiaolei Sun, Rongda Chen

Friday, 9 July, 16:00—16:20

Room: Huizhi Building, H-102

VooV Meeting Room ID: 360 432 301

Link: <https://meeting.tencent.com/s/Q02EFMpTLE1B>



Predictability of sovereign CDS: permutation entropy method (ID 131, Onsite)

Qianqian Feng, Jun Hao, Xiaolei Sun and Jianping Li

Forecasting short-term tourism demand with a decomposition-ensemble strategy (ID 134, Onsite)

Yuyao Feng, Jun Hao, Xiaolei Sun and Jianping Li

WS12: Scientific data analysis and decision making

Chairs: Dengsheng Wu, Qingsheng Pei, Jianping Li

Friday, 9 July, 15:30—17:10

Room: Huizhi Building, H-103

VooV Meeting Room ID: 570 583 720

Link: <https://meeting.tencent.com/s/PTYUw15zmfq6>

Research on Influencing Factors of Customer Satisfaction of E-commerce of Characteristic Agricultural Products (ID 262, Online)

Xinyi Liu and Zhiping Kao

An Evolutionary Game Analysis of Subsidy Strategies in the Supply Chain of SMEs Based on System Dynamics (ID 263, Online)

Zongkai Jin and Qinyue Zheng

Financing Strategy of SMEs Based on the Shortage of Environmental Protection Funds (ID 264, Online)

Wang Haiyang and Zhuang Xiaohui

Evaluation on Financial Support Efficiency of New Generation High-tech Industry in China (ID 37, Onsite)

Zhiyuan Lü and Mu Zhang

The Impact of Analysts' Attention and Research Reports' Attention on Corporate Bond Credit Spreads in China (ID 41, Onsite)

Sisi Li and Mu Zhang

Green Supply Chain Coordination with Substitutable Products under Cost Sharing Contract (ID 178, Onsite)

Hongfang Song, Hongrui Chu, Haodi Yue and Yahong Chen

Analysis on the difference of Regional High-Quality Development in Beijing-Tianjin-Hebei City Cluster (ID 187, Onsite)

Wen Tian, Weihong Li, Hongfang Song and Haodi Yue

The High-quality Development in Beijing-Tianjin-Hebei Regions: Based on the Perspective of Comparison (ID 196, Onsite)

Weihong Li, Hongfang Song, Fan Dong and Fengfeng Li

Closed-loop Supply Chain Models of lithium-ion battery Considering Corporate Social Responsibility (ID 198, Onsite)

Haodi Yue, Hongfang Song and Wen Tian

Measuring the academic influence of geological research institutions based on international awards (ID 221, Onsite)

Xiaoli Lu, Shiyi Wang and Cuifeng Ma

Banquet and Awards Ceremony

Friday, 9 July, 18:00—21:00

Venue: Holiday Inn Chengdu Airport

VooV Meeting Room ID: 638 954 211

Link: <https://meeting.tencent.com/s/gZppAqWkRbme>

General Session: Main Track

Chairs: Yong Shi, Fan Meng

Saturday, 10 July, 08:00—12:20

Room: Huizhi Building, H-101

VooV Meeting Room ID: 233 131 685

Link: <https://meeting.tencent.com/s/Dz6QPxe58N1F>

Energy homeostasis management strategy for building rooftop nanogrids, considering the thermal model and a HVAC unit installed. (ID 1, Online)

Fernando Yanine, Antonio Sanchez-Squella, Aldo Barrueto, Sarat Kumar Sahoo, Antonio Parejo and Felisa M. Cordova

Strategic support for the distribution of vaccines against Covid-19 to Brazilian remote areas: A multicriteria



approach in the light of the ELECTRE-MOR method (ID 6, Online)

Natália Oliveira Barbosa De Paula, Igor Pinheiro de Araújo Costa, Paula Drumond, Miguel Ângelo Lellis Moreira, Carlos Francisco Simões Gomes, Marcos dos Santos and Sérgio Mitihiro do Nascimento Maêda

Prospective scenarios applied in course portfolio management: An approach in light of the Momentum and ELECTRE-MOR methods (ID 7, Online)

Paula Mellem, Igor Costa, Arthur Pinheiro de Araújo Costa, Miguel Ângelo Lellis Moreira, Carlos Francisco Simões Gomes, Marcos dos Santos and José Victor de Pina Corriça

A multicriteria decision-making approach to classify military bases for the Brazilian Navy (ID 12, Online)

Isaque David Pereira de Almeida, Igor Pinheiro de Araújo Costa, Arthur Pinheiro de Araújo Costa, José Victor de Pina Corriça, Miguel Ângelo Lellis Moreira, Carlos Francisco Simões Gomes, Marcos dos Santos

Evaluation of drones for public security: a multicriteria approach by the PROMETHEE-SAPEVO-M1 systematic (ID 19, Online)

Miguel Ângelo Lellis Moreira, Carlos Francisco Simões Gomes, Marcos Santos, Marcio Basilio, Igor Costa, Claudio Rocha Junior and Rafael Jardim

Strategy Analysis for project portfolio evaluation in a technology consulting company by the hybrid method THOR (ID 20, Online)

Nicole Santos, Claudio de Souza Rocha Junior, Miguel Ângelo Lellis Moreira, Marcos dos Santos, Carlos Francisco Simões Gomes and Igor Pinheiro de Araújo Costa

Design of a framework of military defense system for governance of geoinformation (ID 26, Online)

Rafael Jardim, Marcos dos Santos, Edgard Neto, Fernando Muradas, Bruna Santiago and Miguel Moreira

Sensitivity Analysis by the PROMETHEE-GAIA method: Algorithms evaluation for COVID-19 prediction (ID 64, Online)

Miguel Ângelo Lellis Moreira, Carlos Francisco Simões Gomes, Marcos dos Santos, Antonio Carlos da Silva Júnior and Igor Pinheiro de Araújo Costa

Strategy study to prioritize marketing criteria: an approach in the light of the DEMATEL method (ID 66, Online)

Paula Drumond, Igor Pinheiro de Araújo Costa, Miguel Ângelo Lellis Moreira, Marcos dos Santos, Carlos Francisco Simões Gomes and Sérgio Mitihiro do Nascimento Maêda

Black Bird Attack: A Vital Threat to Blockchain Technology (ID 82, Online)

Zexi Xing and Zhengxin Chen

Creation and implementation of an IoT-based thermometer prototype for a food organization: case study (ID 103, Online)

Claudio de Souza Rocha Junior, Miguel Moreira, Marcos Santos and Carlos Francisco Simões Gomes

Proposed Interactive Framework as Support in the Analysis of Maritime Exercises of the Brazilian Navy (ID 120, Online)

Claudio de Souza Rocha Junior, Miguel Ângelo Lellis Moreira, Leonardo Pessôa and Fernando Muradas

Using BAR Switch to Prevent Black Bird Embedded Double Spending Attack (ID 122, Online)

Zexi Xing and Zhengxin Chen

Influencing Factors and Multiple Paths of Construction Ability of Digital Government: Qualitative Comparative Analysis Based on 31 Chinese Provinces (ID 192, Online)

Yifan Guo and Bei Lin



Data science supporting a question classifier model (ID 195, Online)

Rafael Jardim, Carla Delgado and Daniel Schneider

Adaptability of Financial Time Series Prediction Based on BiLSTM (ID 2, Onsite)

Mo Yang and Jing Wang

A Review on the Construction of Business Intelligence System Based on Unstructured Image Data (ID 57, Onsite)

Linzi Zhang, Zhiquan Qi and Fan Meng

Visual Anomaly Detection for Images: A Systematic Survey (ID 69, Onsite)

Jie Yang, Ruijie Xu, Zhiquan Qi and Yong Shi

Review of monopoly models and implications for antitrust (ID 72, Onsite)

Mengyu Shang, Yuan Li and Zhiquan Qi

A knowledge graph constructed for job-related crimes (ID 79, Onsite)

Yong Shi, Wenlu An, Jiayu Xue and Yi Qu

Creating cultural brand equity from the perspective of consumer cognition--a case study of Chinese animation brands (ID 86, Onsite)

Jia-Yi Fan, Yan-Qiao Lu, Qi-Xing Qu and Li Zhang

Research on the Rules of Scientists' Knowledge Sharing based on Interdisciplinary Measurement (ID 96, Onsite)

Yong Shi and Yunong Wang

The neural network methods for solving Traveling Salesman Problem (ID 99, Onsite)

Yong Shi and Yuanying Zhang

A brief survey on Computational Gromov-Wasserstein distance (ID 101, Onsite)

Lei Zheng, Yang Xiao and Lingfeng Niu

A survey of sparse regularization based compression methods (ID 102, Onsite)

Anda Tang, Pei Quan, Lingfeng Niu and Yong Shi

Analysis of Rural Households' Borrowing Behavior and Its Influencing Factors in Western China (ID 173, Onsite)

Wanjuan Zhang and Jing Wang

WS07: Business Intelligence

Chairs: Chonghui Guo, Kun Guo, Yong Shi

Saturday, 10 July, 08:00-09:20

Room: Huizhi Building, H-102

VooV Meeting Room ID: 208 310 315

Link: <https://meeting.tencent.com/s/WeNuEZKdwvo9>

The impact of linguistic style of medical crowdfunding philanthropic appeals on individual giving (ID 42, Online)

Xinyue Wang, Xing Zhang and Anqi Tong

Impact of capital structure and innovation on firm performance. Direct and indirect effects of capital structure (ID 174, Online)

Héctor Cuevas-Vargas, Héctor Abraham Cortés-Palacios and Jeffrey J. Lozano-García

Value of High-Quality Distribution in Front Warehouse Mode Retailing (ID 17, Onsite)

Jiayi Zhu and Xin Tian

Impact of IT Capability on Inventory Management: An Empirical Study (ID 21, Onsite)

Xin Tian and Haoqing Wang

Does the emotional tendency of COVID-19 news affect financial markets? (ID 78, Onsite)

Wen Long, Yanqiang Zhong, Ruiqin Li and Manyi Zhao

Liquidity Commonality Effect in Stock Market and Risk Correlation from the Perspective of Complex Network (ID 105, Onsite)

Haoyuan Feng, Jie Wu and Kun Guo

The spillover effect of VIX and oil price on the exchange rate volatility among Belt and Road countries (ID 112, Onsite)



Xueqing Geng and Kun Guo

Analysis on the Transmission of International Oil Price to China's Price Index--Based on Granger Causality Network (ID 200, Onsite)

Yijing Wang, Xiuzhenzi Wang and Kun Guo

WS01: Outlier Detection in Financial Data Streams & Big Data and Management Science

Chairs: Aihua Li, Zhidong Liu, Fan Meng

Saturday, 10 July, 09:20—10:40

Room: Huizhi Building, H-102

VooV Meeting Room ID: 208 310 315

Link: <https://meeting.tencent.com/s/WeNuEZKdwvo9>

The Impact of COVID-19 on China's Capital Market and Major Industry Sectors (ID 13, Onsite)

Weijia Xu, Aihua Li and Lu Wei

Target Aggregation Regression based on Random Forests (ID 75, Onsite)

Fan Meng, Yue Tan and Yi Bu

The Effect of Media on the Chinese People's Anti-Corruption Perceptions--An Analysis Based on Propensity Score and Qualitative Interaction Tree (ID 83, Onsite)

Meihong Zhu and Aihua Li

Housing Affordability Analysis Based on D-HAQ Model (ID 87, Onsite)

Diwen Wang and Aihua Li

Do Bond Investors Care about Margin Trading and Securities lending? --An Empirical Study Based on Secondary Market of Medium Term Notes (ID 90, Onsite)

Yufei Han, Yuejin Zhang, Chuyu Jiang and Haifeng Li

An Evidence theory and data fusion based classification method for decision making (ID 137, Onsite)

Fanding Meng, Aihua Li and Zhidong Liu

An Information Based Fuzzy Partitioning Approach (IBFP) for "Bad" Credit Detection (ID 184, Onsite)

Aihua Li, Jing He and Zhidong Liu

Research on Credit Risk Evaluation of Commercial Banks Based on Artificial Neural Network Model (ID 185, Onsite)

Yong Hu and Jie Su

WS08: Credit Risk Evaluation and Management

Chair: Jing Gu

Saturday, 10 July, 10:40—12:10

Room: Huizhi Building, H-102

VooV Meeting Room ID: 208 310 315

Link: <https://meeting.tencent.com/s/WeNuEZKdwvo9>

A Comparative Study of Credit Risk Infection at Domestic and Abroad Based on Knowledge Map (ID 31, Online)

Shuai Chen, Yating Zhang and Li Li

Automation of the Approach to Replicating Data When the Control Group Is Depleted in The Difference-In-Differences Method: Application to IRB Implementation Data Samples (ID 33, Online)

Henry Penikas, Anastasia Skarednova, Mikhail Surkov and Yury Festa

Review of Systematic Financial Risk Research Based on Knowledge Map (ID 45, Online)

Fangzheng Liu, Yating Zhang and Li Li

Study on the contagion mechanism of associated credit risk with corporate senior executives' alertness (ID 30, Onsite)

Kai Xu, Qian Qian, Xiaofeng Xie and Zongfang Zhou

A risk detection framework of Chinese high-tech firms using wide & deep learning model based on text disclosure (ID 38, Onsite)

Fang Da, Chao Peng, Haomin Wang and Tie Li

Credit Risk Evaluation of Quantum Communications Listed Companies in China Based on Fermatean Fuzzy TOPSIS (ID 52, Onsite)

Cheng Cao and Mu Zhang



Shadow Banking Under Capital Regulation and The Internal Ratings-Based Approach (ID 65, Onsite)

Maria Ermolova

The Contagion of Associated Credit Risk Based on the Real Estate Companies Network (ID 70, Onsite)

Yongkui Li and Chen Guo

Evaluation of associated credit risk in supply chain based on trade credit risk contagion (ID 146, Onsite)

Xiaofeng Xie, Kai Xu, Junyao Wang, Xinyu Shi, Xiuying Hu and Fengying Zhang

WS05: Multi-Source Data-Driven Financial Fraud Risk Analysis

Chairs: Xiaoqian Zhu, Kun Guo, Jianping Li

Saturday, 10 July, 08:00—09:10

Room: Huizhi Building, H-103

VooV Meeting Room ID: 369 193 817

Link: <https://meeting.tencent.com/s/MOavVNA0dvSh>

The impact of disclosure characteristics of the registration statement for Science and Technology Innovation Board on the IPO underpricing (ID 35, Onsite)

Chen Han, Dong Liang, Jie Huang and Lu Wei

The impact of disclosure characteristics of application texts on the Science and Technology Innovation Board listed companies (ID 36, Onsite)

Huidong Wu, Yuqi Deng, Chengliang Wu, Chen Han and Lu Wei

Financial fraud detection using the related-party transaction knowledge graph (ID 106, Onsite)

Xuting Mao, Hao Sun, Xiaoqian Zhu and Jianping Li

Analysis of financial fraud based on manager knowledge graph (ID 113, Onsite)

Shigang Wen, Jianping Li, Xiaoqian Zhu and Mingxi Liu

Financial fraud risk analysis based on audit information knowledge graph (ID 115, Onsite)

Huidong Wu, Yanpeng Chang, Jianping Li and Xiaoqian Zhu

The gap between credit rating theory and practice: evidence from bond issuers in China (ID 149, Onsite)

Shuwen Gai, Xuting Mao and Mingxi Liu

Internal Control Quality, Related Party Transactions and Accounting Information Comparability (ID 197, Onsite)

Jing Li, Tongshui Xia and Dengsheng Wu

WS02: Risk Scenario-based Decision Making: Methods and Applications

Chairs: Weilan Suo, Gang Li, Mingxi Liu

Saturday, 10 July, 09:10—10:20

Room: Huizhi Building, H-103

VooV Meeting Room ID: 369 193 817

Link: <https://meeting.tencent.com/s/MOavVNA0dvSh>

Anomaly detection of diabetes data based on hierarchical clustering and CNN (ID 10, Online)

Jinhai Fang, Zuoling Xie, Haitao Cheng, Peng Li, He Xu and Bin Fan

Extending Bayesian Learning to Intelligent Learning in Human Way (ID 18, Onsite)

Lei Zhang, Weilan Suo, Ziyang Zhang and Mandi Liu

China's local government debt risk assessment and countermeasures under the influence of COVID-19 (ID 51, Onsite)

Chao Peng, Fang Da, Junhong Wu and Guangxu Li

A Deep Learning Framework for Baltic Dry Index Forecasting (ID 121, Onsite)

Mingxi Liu, Yajie Zhao, Jingkai Wang, Chang Liu and Guowen Li

Research on personal credit risk evaluation based on XGBoost (ID 180, Onsite)

Kui Wang, Meixuan Li, Jingyi Cheng, Xiaomeng Zhou and Gang Li



Research on the Construction and Measurement of Inclusive Finance Evaluation Index System (ID 183, Onsite)

Heng Zhang, Fang Yuan, Yinfeng Cui and Gang Li

Risk Scenario-based Value Estimation of Bitcoin (ID 190, Onsite)

Cen Cai, Wencheng Li, Hui Han and Mingxi Liu

WS06: Digital Technologies, Digital Marketing, and Business Value

Chairs: Xiaobo Xu, Fei Ma, Wenbin Sun

Saturday, 10 July, 10:20—11:00

Room: Huizhi Building, H-103

VooV Meeting Room ID: 369 193 817

Link: <https://meeting.tencent.com/s/MOavVNA0dvSh>

Research on the Influencing mechanisms of Backers' Impulsive Support in Reward-based Crowdfunding Based on Cognitive Appraisal Theory (ID 62, Online)

Impulsive Support in Reward-based Crowdfunding Based on Cognitive Appraisal Theory (ID 62, Online)

Zihui Yi, Yuhong Luo, Ye Feng, Yang Wang, Yuanyue Feng and Congcong Yang

Exclusive Copyright Strategy of Competing Music Platforms (ID 11, Onsite)

Hongyan Xu, Nengyue Zhu and He Huang

The Coupling Coordination Development of Rural E-commerce and Rural Revitalization: A Case Study of 10 Rural Revitalization Demonstration Counties in Guizhou (ID 59, Onsite)

Gang Feng and Mu Zhang

Evaluation on Consumer Perceived Trust of Cross-border E-commerce under the Socialization (ID 80, Onsite)

Yuwen Huang, Guanxing Song and Qiongwei Ye

WS09: The application of artificial intelligence in communication networks

Chairs: Yang Oiu, ChuanWu Zhang, Feng Miao

Saturday, 10 July, 11:00—11:50

Room: Huizhi Building, H-103

VooV Meeting Room ID: 369 193 817

Link: <https://meeting.tencent.com/s/MOavVNA0dvSh>

One optimized LMF algorithm in low SNR (ID 3, Onsite)

Sihai Guan, Qing Cheng, Xiumin Wang and Fangyao Liu

A Novel Machine Lip Reading Model (ID 238, Onsite)

Hongyang Huang, Song Chai, Taoling Tian and Ting Jin

A French-to-English Machine Translation Model Using Transformer Network (ID 239, Onsite)

Taoling Tian, Song Chai, Ting Jin and Hongyang Huang

A Comprehensive Dataset for Machine-Learning-based Lip-Reading Algorithm (ID 240, Onsite)

Ting Jin, Song Chai, Hongyang Huang and Taoling Tian

Improved variable step-size least mean square algorithm based on Sigmoid function (ID 248, Onsite)

Wei Yu, Qing Cheng and Sihai Guan

SS01: Computer Supported Collaborative Decision-Making: Methods, Tools, Systems, and Applications

Chairs: F. G. Filip, Cristian Ciurea

Saturday, 10 July, 13:30—16:40

Room: Huizhi Building, H-101

VooV Meeting Room ID: 233 131 685

Link: <https://meeting.tencent.com/s/Dz6QPxe58N1F>

Improvement of K-means Cluster Quality by Post Processing Resulted Clusters (ID 9, Online)

Ioan-Daniel Borlea, Radu-Emil Precup and Alexandra-Bianca Borlea

Development of a Real Time Smishing Detection Mobile Application using Rule Based Techniques (ID 15, Online)

Oluwatobi Akande, Gbenle Oluwadara, Hakeem Babalola Akande, Aderonke Kayode, Adekanmi Adegun and Folorunsho Olaiya

A Group Multi-Criteria approach for development of a country COVID-19 indicator (ID 22, Online)

Constanta Zoie Radulescu, Marius Radulescu, Gheorghita Zbaganu and Radu Boncea



Iterative Feedback Tuning Algorithm for Tower Crane Systems (ID 24, Online)

Raul-Cristian Roman, Radu-Emil Precup, Elena-Lorena Hedrea, Stefan Preitl, Iuliu Alexandru Zamfirache, Claudia-Adina Dragos and Emil M Petriu

Choice of armored vehicles on wheels for the Brazilian Marine Corps using PrOPPAGA (ID 43, Online)

Felipe dos Santos and Marcos dos Santos

Fuzzy Association Rules Mining based on Type-2 Fuzzy Sets over Data Stream (ID 67, Online)

Jing Chen, Peng Li, Weiqing Fang, Ning Zhou, Yue Yin, He Xu and Hui Zheng

Application of Fermatean fuzzy matrix in co-design of urban projects (ID 68, Online)

Rodrigo Barraza Alonso, Juan Miguel Sepúlveda and Ivan Derpich

Decision Making using the Blockchain Proof of Authority Consensus (ID 85, Online)

Manuel Adelin Manoalche, Sergiu Manolache and Nicolae Tapus

Applying Design Science Research for Developing Business Artifacts (ID 93, Online)

Mihaela Muntean, Rodica-Doina Danaiata and Luminita Hurbean

Application of DEA and Group Analysis using K-means; compliance in the context of the performance evaluation of school networks (ID 100, Online)

Lorran Rodrigues, Marcos Santos and Claudio Rocha Junior

House Price Prediction using Random Forest Machine Learning Technique (ID 119, Online)

Abigail Bola Adetunji, Oluwatobi Akande, Funmilola Alaba Ajala, Oyewo Ololade and Yetunde Faith Akande

Selection of interns for startups: an approach based on the AHP-TOPSIS-2N method and the 3DM computational platform (ID 152, Online)

Claudio Rocha Junior, Miguel Moreira and Marcos Santos

Collaborative decision-making in online education (ID 175, Online)

Daniela Petrescu, Dumitru Enache and Luminita Duta

Towards intelligent public transport systems in Smart Cities; Collaborative decisions to be made (ID 193, Online)

Maria Vişan, Sorin Lenus Negrea and Firicel Mone

Assessing Normalization Techniques for Simple Additive Weighting Method (ID 194, Online)

Nazanin Vafaei, Rita Ribeiro and Luis M. Camarinha-Matos

Analyzing Cultural Biases through the “Reverse Clustering” Approach: The Reality and the Interpretation (ID 206, Online)

Jan Owsinski, Cristian Ciurea and Jarosław Stańczak

Collaborative decision-making in software research projects: the innovation challenge (ID 207, Online)

Ioana Andreea Stefan, Antoniu Stefan, Hariklia Tsalapatas, Olivier Heidmann and Ancuta Florentina Gheorghe

Digital Twin for automated guided vehicles fleet management (ID 220, Online)

Alexandru Matei, Dragoş Circa and Bălă-Constantin Zamfirescu

TS_XGB: Ultra-Short-Term Wind Power Forecasting Method Based on Fusion of Time-Spatial Data and XGBoost Algorithm (ID 177, Onsite)

Feng Wang, Rui Tang, Jiading Jiang, Lingling Zhang and Xin Xu

SS02: Intelligent Decision Making and Extenics based Innovation
Chairs: Xingsen Li, Yanwei Zhao, Baiqing Sun, Tao Wang, Ping Yuan



Saturday, 10 July, 13:30—14:50
 Room: Huizhi Building, H-102
 VooV Meeting Room ID: 208 310 315
 Link: <https://meeting.tencent.com/s/WeNuEZKdwvo9>

Research on the Quality Evaluation of Innovation and Entrepreneurship Education of College Students Based on Extenics (ID 88, Online)

Yingying Zhou and Hequn Zhou

Research on Design Innovation Method Based on Extenics Compound-Element (ID 151, Online)

Jinguang Wang, Jiawei Chen and Hongjie Guo

Research on Extension Innovation Model in the Creation Process of Service Design (ID 153, Online)

Jinguang Wang, Hongjie Guo and Jiawei Chen

Research on The Generation of Extension Strategy for The Transformation of Residential Buildings in Baoshui Village, Fangshan District, Beijing (ID 223, Online)

Tao Wang and Wenjie Li

Projection as a way of thinking to find factors in factor space (ID 73, Onsite)

Kong Qi-Wei, He Jing, Wang Pei-Zhuang, Zheng Hui and Zhang Zhi-Wang

Extension Psychology & Counseling Based on Extenics (ID 124, Onsite)

A.Evangeline Gwo and Keyi Huang

Research on the Design of Intelligent Recycling System for Cosmetics Based on Extenics (ID 145, Onsite)

Jinguang Wang, Mincong Tang and Hao Wang

Extension analysis and solution of contradictions in case adaptation (ID 166, Onsite)

Zhao Yanwei, Zhan Min, Xu Chen, Ren Shedong and Gui Fangzhi

**WS03: Optimization-based Data Mining
 Chairs: Yingjie Tian, Zhiquan Qi, Yong Shi**

Saturday, 10 July, 14:50—16:20
 Room: Huizhi Building, H-102
 VooV Meeting Room ID: 208 310 315
 Link: <https://meeting.tencent.com/s/WeNuEZKdwvo9>

A brief overview of kernel methods with prior information (ID 39, Onsite)

Saiji Fu, Shiding Sun, Xinfeng Wang and Dalian Liu

Fine-grained attribute-aware analysis for person re-identification (ID 40, Onsite)

Kunlong Bai, Saiji Fu, Linrui Yang and Dalian Liu

Local density peaks clustering with small size distance matrix (ID 48, Onsite)

Meng Xian Zhu, Xiao Jing Lv, Wei Jie Chen, Chun Na Li and Yuan Hai Shao

Divergent Projection Analysis for Unsupervised Dimensionality Reduction (ID 56, Onsite)

Shanshan Wang, Lan Bai, Xu Chen, Zhen Wang and Yuan-Hai Shao

Investors pay attention to multi-level financial news--"A pure waste of time" or "It's worth it" (ID 60, Onsite)

Wen Long, Jiaqi Tian, Yuanfeng Mao and Yuan An

Linex-RSVM: Ramp Linex Support Vector Machine (ID 76, Onsite)

Chunhua Zhang and Ziyang Wang

Sparse Multiple Instance Learning for Elderly People Balance Ability (ID 91, Onsite)

Yuqi Zhang, Duo Su, Xiaoxi Zhao and Yingjie Tian

Ultra high frequency financial prediction using temporal convolutional network (ID 186, Onsite)

Wei Dai, Yuan An and Wen Long

Research on Option Pricing Based on GA-BP neural network (ID 218, Onsite)

Long Qian, Jianbin Zhao and Yue Ma



SS03: Soft Computing Methods in Quantitative Management and Decision Making
Chairs: Simona Dzitac, Sorin Nadaban, Bogdana Stanojevic, Domnica Dzitac
 Saturday, 10 July, 16:20—17:20
 Room: Huizhi Building, H-102
 VooV Meeting Room ID: 208 310 315
 Link: <https://meeting.tencent.com/s/WeNuEZKdwvo9>

Empirical (alpha, beta)-acceptable optimal values to full fuzzy linear fractional programming problems (ID 4, Online)
 Bogdana Stanojevic and Milan Stanojevic

The adoption of ICT as an enabler of frugal innovation to achieve customer satisfaction. The mediating effect of frugal innovation (ID 29, Online)
 Héctor Cuevas-Vargas, Neftalí Parga-Montoya and Rudy Fernández-Escobedo

How ICT usage affect frugal innovation in Mexican small firms. The mediating role of entrepreneurial orientation (ID 32, Online)
 Héctor Cuevas-Vargas and Neftalí Parga-Montoya

Human behavior recognition model based on improved EfficientNet (ID 53, Online)
 Chen-Yun Luo, Shu-Yan Cheng, He Xu and Peng Li

Analytic description to the fuzzy efficiencies in fuzzy standard Data Envelopment Analysis (ID 71, Online)
 Bogdana Stanojevic and Milan Stanojević

Evaluation of environmental and economic efficiency of transportation in China based on SBM model (ID 179, Onsite)
 Xu Jiang, Hewen Ma, Xiao Wu, Yanpin Zou and Jianwen Fu

WS13: District financial risk management and unstructured data mining
Chairs: Gang Kou, Daji Ergu, Yi Peng, Fangyao Liu, Fan Wang
 Saturday, 10 July, 13:30—15:10

Room: Huizhi Building, H-103
 VooV Meeting Room ID: 369 193 817
 Link: <https://meeting.tencent.com/s/MOavVNA0dvSh>

Consensus reaching process in large-scale group decision making based on opinion leaders (ID 74, Onsite)
 Yanhong Li, Guangxu Li and Gang Kou

Text sentiment analysis of fusion model based on attention mechanism (ID 107, Onsite)
 Hongjie Deng, Daji Ergu, Fangyao Liu, Ying Cai and Bo Ma

A robust cross-ethnic digital handwriting recognition method based on deep learning (ID 108, Onsite)
 Hao Gao, Daji Ergu, Ying Cai, Fangyao Liu and Bo Ma

Prediction of loan default based on multi-model fusion (ID 109, Onsite)
 Xingyun Li, Daji Ergu, Dafeng Qiu, Di Zhang, Ying Cai and Bo Ma

A Review of Yolo Algorithm Developments (ID 172, Onsite)
 Peiyuan Jiang, Daji Ergu, Fangyao Liu, Ying Cai and Bo Ma

Method for judging parking status based on yolov2 target detection algorithm (ID 219, Onsite)
 Hanbo Zhou, Yiming Zhao and Wei Xiang

Improvement of AnyNet-based end-to-end phased binocular stereo matching network (ID 245, Onsite)
 Sizhe Chen, Daji Ergu, Ying Cai and Bo Ma

A review of natural scene text detection methods (ID 247, Onsite)
 Lingqian Yang, Daji Ergu, Ying Cai and Bo Ma

Zhima Credit Score in Default Prediction for Personal Loans (ID 255, Onsite)
 Haomin Wang, Wei Chen and Fang Da

Improved Faster R-CNN Based On CSP-DPN (ID 260, Onsite)
 Ruhui Xue, Yansong Deng and Wei Xiang



SS04: Modeling and Data collection for decision making in Finance Applications

Chairs: A. M. Karminsky, Massimiliano Caporin, M.I. Stolbov

Saturday, 10 July, 15:10—16:10

Room: Huizhi Building, H-103

VooV Meeting Room ID: 369 193 817

Link: <https://meeting.tencent.com/s/MOavVNA0dvSh>

Efficiency linkages between cryptocurrencies, equities and commodities at different time frame (ID 27, Online)

Daniil Parfenov

Analysing the Determinants of Insolvency and Developing the Rating System for Russian Insurance Companies (ID 28, Online)

Sergei Grishunin, Alesya Bukreeva and Alyona Astakhova

The Impact of ESG factors on the performance of Information Technology Companies (ID 49, Online)

Alexandra Egorova, Sergei Grishunin and Alexander Karminsky

Platform ecosystems and its modelling: Russian evidence (ID 84, Online)

Alexander Karminsky and Nikolay Voytov

Validation of the effectiveness of the bank retail portfolio risk management procedure (ID 118, Online)

Mikhail Pomazanov

Evaluation of the Regional Financial Efficiency Based on SBM-Shannon Entropy model (ID 148, Onsite)

Fangning Ma, Jingyu Li, Hewen Ma and Yi Sun

SS06: Intelligent Decision Support Systems

Chairs: Enrique Herrera-Viedma, Francisco Chiclana, Yucheng Dong, Francisco Javier Cabrerizo, Juan Antonio Morente, Ignacio Javier Perez

Saturday, 10 July, 16:10—17:10

Room: Huizhi Building, H-103

VooV Meeting Room ID: 369 193 817

Link: <https://meeting.tencent.com/s/MOavVNA0dvSh>

Managing Group Decision Making criteria values using Fuzzy Ontologies (ID 25, Online)

Juan Antonio Morente-Molinera, Francisco Javier Cabrerizo, Jose Ramón Trillo, Ignacio J. Perez and Enrique Herrera-Viedma

Economic and edaphoclimatic evaluation of Brazilian regions for African mahogany planting-an approach using the SAPEVO-M-NC ordinal method (ID 46, Online)

Sérgio Mitihiro do Nascimento Maêda, Igor Pinheiro de Arajo

Costa, Carlos Francisco Simões Gomes, Marcos dos Santos,

Ivan Suarez da Mota, Luiz Frederico Horácio de Souza de

Barros Teixeira

Study of Manhattan's consensus degrees through an extension based on the Uniform distribution (ID 94, Online)

Juan Miguel Tapia García, Francisco Chiclana, María José del

Moral Ávila and Enrique Herrera Viedma

Profiling clients in the tourism sector using fuzzy linguistic models based on 2-tuples (ID 104, Online)

Itzcóatl Bueno, Ramon Alberto Carrasco, Carlos Porcel and

Enrique Herrera-Viedma

A dynamic social network-driven consensus reaching model (ID 168, Onsite)

Fang Wang, Hengjie Zhang and Yucheng Dong

Consensus measure for interval multiplicative preference relations from a probability distribution perspective (ID 171, Onsite)

Siping Xue, Jiancheng Tu and Zhibin Wu

SS05: Neuromanagement and Neuromarketing

Chair: Felisa M. Córdova

Saturday, 10 July, 21:15—22:15

Room: Huizhi Building, H-101

VooV Meeting Room ID: 597 992 321

Link: <https://meeting.tencent.com/s/EKrKRjfkS140>

On the meaning of Hurst entropy applied to EEG data series (ID 224, Online)

Hernan Diaz and Felisa Cordova



Visualization of EEG brain entropy dynamic maps in basal resting state conditions (ID 225, Online)

Hernan Diaz, Diego Díaz and Felisa Cordova

Design of an EEG analytical methodology for the analysis and interpretation of cerebral connectivity signals (ID 226, Online)

Felisa M. Cordova, Hugo F. Cifuentes, Hernan A. Diaz, Fernando Yanine and Robertino Pereira

Some experiences in Neuromarketing: moving from White papers to Scientific inquiries (ID 229, Online)

Felisa M. Cordova, Robertino Pereira and Hernan A. Diaz

Hurst entropy profiles for Beta Low and Beta High EEG sub-bands Part I: Intragroup comparison (ID 230, Online)

Hernan Diaz, Elías Gárate Lira, Fernando Maureira Cid and Elizabeth Flores

Hurst entropy profiles for Beta Low and Beta High EEG sub-bands II: Intergroup comparison (ID 231, Online)

Hernan Diaz, Elías Gárate Lira, Fernando Maureira Cid and Elizabeth Flores

WS10: After COVID-19, How Does Digital Empower Grassroots Governance?

Chairs: Daneng Zhong, YuKun Guo, Xingyu Qi, Xuan Zhang

Sunday, 11 July, 08:30—11:00

Huizhi Building, H-101

VooV Meeting Room ID: 219 995 285

Link: <https://meeting.tencent.com/s/831A64KKMtJP>

Discussion of Commercial Real Estate with A Short Remaining period of Land Use Rights on Evaluation Thoughts of Income Approach (ID 16, Onsite)

Yukun Guo and Yan Zhou

IIoT Talent Cultivating Mechanism in line with Industrial Internet (ID 55, Onsite)

Liangyin Chen, Lei Zhang, Yanbing Yang, Min Guo, Shijia Liu, Yanru Chen and Shunfang Hu

CiteSpace-based government WeChat research literature measurement and research trend analysis (ID 97, Onsite)

Yuzhen Li and Xingyu Qi

Smart governance: The era requirements and realization path of the modernization of the basic government governance ability (ID 98, Onsite)

Dong Liu and Xingyu Qi

Visual Analysis of Undergraduate Teaching in Business Administration (ID 116, Onsite)

Lingyan Li and Yukun Guo

Inspiration of Japan's housing security system--Reflections on reading "Bankruptcy After Old Age" (ID 125, Onsite)

Yan Zhou

Study on the Influence of Chengdu-Chongqing High Speed Railway on the Economic Development of Neijiang City (ID 130, Onsite)

Jie Zhao, Yukun Guo

Analysis of the impact of business administration informatization on China's real estate economy (ID 136, Onsite)

Ameng Xie

Analysis on Intelligent Management of Human Resources in Urban Community under Normalized Epidemic Prevention and Control (ID 143, Onsite)

Xingshu Gu and Zixiang Zhang

Research on the function evolution and driving mechanism of rural homestead in Luxian County under the "Rural Revitalization" (ID 150, Onsite)

Guo Yukun and Long Xingyu

An Analysis of the Work Motivation of Cadres from the Perspective of National Strategic Development and Management (ID 156, Onsite)

Xu Zhihang and Wang Yueyue



Study on the Relation of Grassroots Corruption and Government Expenditure (ID 165, Onsite)

Su Nan

Study on the Relationship of Grassroots Corruption and Government Expenditure Based On Panel Data (ID 189, Onsite)

Su Nan

Causal Analysis of Impact Factors of COVID-19 in China (ID 259, Onsite)

Haifeng Li

Empirical study on the influencing factors of housing price--Based on cross-section data of 31 provinces and cities in China (ID 261, Onsite)

Yuxi Jiang and Lilan Qiu

WS15: Artificial Intelligence and Value Creation
Chairs: Taeho Park, Youngsik Kang, Jinyoung Min, Heeseok Lee

Sunday, 11 July, 08:30—09:00

Huizhi Building, H-102

VooV Meeting Room ID: 583 212 455

Link: <https://meeting.tencent.com/s/AUq04DVK4uLi>

Customer Churn Prediction in Influencer Commerce: An Application of Decision Trees (ID 217, Online)

Sulim Kim and Heeseok Lee

Lost in Translation: What Linguistic Measurements Best Measure Text Quality of Online Listings (ID 252, Online)

Ming Zhou, Yang Sun and Shaonan Tian

Web Protection empowered by Big Data and Machine Learning (ID 254, Online)

Jongwook Sung and Taeho Park

WS04: Intelligent Control
Chairs: Hao Chen, Zhiyu You, Yixian Chen

Sunday, 11 July, 09:00—11:20

Huizhi Building, H-102

VooV Meeting Room ID: 583 212 455

Link: <https://meeting.tencent.com/s/AUq04DVK4uLi>

YoLite+: a lightweight multi-target detection approach for traffic scenarios (ID 50, Onsite)

Shuai You, Zhiyu Chen, Shangdong Liu and Yimu Ji

Investigation of convergence behavior on fuzzy system (ID 95, Onsite)

Jingjing Han, Xueliang Ma, Yue Xiao and Xingwen Liu

The Implementation of Synergetic Control for a DC-DC Buck-Boost Converter (ID 139, Onsite)

Ke Wang, Duyu Liu, Xingwen Liu and Long Wang

A novel intelligent event trigger scheme on the control of delayed system with disturbance (ID 141, Onsite)

Hongdie Zhang, Jingjing Han, Yue Xiao, Yuhong Zhou, Xueliang Ma and Xingwen Liu

Almost sure stabilization of positive systems under asynchronous Markovian switching (ID 142, Onsite)

Yini Wang, Jun Yang, Dejun Zhu and Xingwen Liu

Stability Analysis of Switched Continuous-time Systems with Stable and Unstable Subsystems (ID 144, Onsite)

Shiyao Li, Xingwen Liu and Yulin Song

Stability Analysis of Discrete-time System with Slowly Time-varying Delays (ID 158, Onsite)

Da Chen, Xingwen Liu and Yulin Song

Observer-Based Event-Triggered H_∞ Control of Switched Systems with Time Delays (ID 159, Onsite)

Ling Yang, Xingwen Liu and Yulin Song

Input-to-State Stability for Discrete-time Monotone Systems via Max-Separable Lyapunov Functions (ID 161, Onsite)

Da Chen, Xingwen Liu and Yulin Song

Sweeping Robot Based on Laser SLAM (ID 191, Onsite)

Shuang Pan, Zihui Xie and Yulian Jiang

A generalized multiple integral inequality with application to time-varying delay systems (ID 199, Onsite)



Li Cai, Lianglin Xiong and Haiyang Zhang

A New Free-matrix Inequality with application to Exponential State Estimation for Markov Jump Neural Networks (ID 201, Onsite)

Xiaoman Liu, Haiyang Zhang, Lianglin Xiong, Tao Wu and Zhaoyong Tang

Passivity Analysis of Delayed Neural Networks Via Novel Integral Inequality (ID 202, Onsite)

Yongjia Ye, Lianglin Xiong, Haiyang Zhang and Yingying Liu

Reduced-order state estimation of complex-valued neural networks with generally uncertain transition rates Markovian jump (ID 203, Onsite)

Zhen Wang, Lianglin Xiong and Haiyang Zhang



About IAITQM & ITQM



The International Academy of Information Technology and Quantitative Management

The inauguration meeting of IAITQM successfully took place in Omaha of United States on Sunday, June 3, 2012. More than 50 participants, coming from China, United States, Australia, South Korea, Japan, The Netherlands, Poland, Romania, Singapore, Spain, Lithuania, Turkey and other countries, attended the meeting.

IAITQM is glad to have Prof. Siwei Cheng (deceased), Mr. Walter Scott (Chairman of Level 3 Communications Inc., board member of Berkshire Hathaway Inc) and Prof. James Tien (NAE/University of Miami) to serve as the Honorary Chairmen. IAITQM attendees discussed and passed the IAITQM bylaws, and held the first election. Attendees elected Prof. Yong Shi as the President, Prof. Peter Wolcott as the Vice President for Conferences, Prof. Wikil Kwak as the Vice President for Finance and Prof. Jianping Li as the Secretary. According to the bylaws, the attendees also elected five committees and their chairpersons, namely, the advisory committee, the awards committee, the executive committee, the conferences committee, and the publications committee.

IAITQM's Vision: The International Academy of Information Technology and Quantitative Management (The Academy) is a global community for educators, scholars, policy makers and professionals to promote innovation and excellence of information technology and quantitative management.

IAITQM's Mission: The Academy

- Develops and maintains a professional identity for all educators, scholars, policy makers and professionals in the fields of information technology and quantitative management around the world;
- Promotes the use of information technology in business and other areas to gain competitive capability;
- Promotes the development of quantitative models in support of identifying solutions that can improve business management and operations;
- Provides multiple interchange or communication venues, including conferences, journals, books, newsletters, etc. to enhance the exchanges of ideas, research findings and business practices related to information technology and quantitative management;
- Acts as a leading association of information technology and quantitative management to improve business efficiency and effectiveness and eventually the quality of life for all humans.



The IAITQM inauguration meeting, June 3, 2012, Omaha, USA



The First International Conference on Information Technology and Quantitative Management, May 2013, Suzhou, China



The Second International Conference on Information Technology and Quantitative Management, June 2014, Moscow, Russia



The Third International Conference on Information Technology and Quantitative Management, July 2015, Rio de Janeiro, Brazil



The Fourth International Conference on Information Technology and Quantitative Management, August 2016, Asan, Korea



The Fifth International Conference on Information Technology and Quantitative Management, December 2017, New Delhi, India



The Sixth International Conference on Information Technology and Quantitative Management, October 2018, Omaha, USA



The Seventh International Conference on Information Technology and Quantitative Management, November 2019, Granada, Spain



Locations of Previous Conferences Globally



About Chengdu: The Land of Abundance

Chengdu, the capital of Sichuan province, where is designated by the State Council as the very center of commerce, logistics, finance and science & technology, and the hub of transport and communication in Western China. As a national historical and cultural city for more than 2000 years, Chengdu enjoys a long history with profound cultural heritages. Chengdu topped a list of new first-tier cities in 2019, according to a ranking published by the China Business Network, China's leading financial media group.

Chengdu has an area of 949.6 Sq.km., it is one of the most densely populated cities involving 16.58 million people in China. The annual GDP of 2019 was 1.701265 trillion RMB (0.2465 trillion US Dollars) and the growth rate has been averaging 7.8 percent. Chengdu ranked seventh in China's cities in the economic development. Chengdu is the strategic fulcrum of economic circulation between domestic and international. The Plan for Chengdu-Chongqing Economic Zone was issued by Chinese Government, which established Chengdu's position as the engine for one of the two cores in Chengdu-Chongqing Economic Zone. Chengdu is currently focused on implementing the strategy of opening regional center, exploring the new aspect of "New Economy".



Photos are taken by a volunteer of local committee, Associate Prof. Dr. Biao Li



About Southwest Minzu University

Southwest Minzu University (SMU), founded in 1950, is one of the top Chinese minority universities in the country with 56 nationalities. This reflects a broad cultural diversity including rich minority customs, the literature, etiquette, folk arts, music, dance, food, medicine etc. SMU has 23 colleges and over 29,000 full-time students. The three main campuses cover nearly 500 acres and are all located in Chengdu. Chengdu is the capital city of Sichuan Province and a center of culture, science, and technology. The University library collection includes over 3,400,000 volumes providing a great resource to explore. SMU has 2,000 staff members, including 680 professors and associate professors. SWU offers 83 undergraduate majors, 110 postgraduate degrees, 7 Ph.D. programs, and one post-doctoral program. Currently, SMU offers 15 double majors and has 11 key research and instruction labs. We offer many short courses and certificate programs as well as diplomas, undergraduate, postgraduate and Ph.D. studies to meet your needs. We have professional experience offering special language training programs in Chinese, Tibetan, Yi, Qiang and other languages. For international students, the university offers organized field-trips to cultural sites. Our multi-cultural environment offers a place for you to experience the beauty and diversity of China. We receive over 400 overseas students every year, and we have developed many exchange programs with universities in more than ten countries. We also have a wild research station named as “Qinghai-Tibetan Plateau Ecological Environmental Protection and Advanced Technology for Animal Husbandry” which is located in Hong-yuan County, Sichuan province.



Photo is taken from the official website of SMU, <https://www.swun.edu.cn/xxgk/xxjj.htm>



Map of the Campus and Conference Venues



Campus: Southwest Minzu University - Aviation Campus (Southern District)

(西南民族大学航空校区-南区)

Address: No.168, Wenxing Section, Dagu Road, Shuangliu District, Chengdu

(成都市双流区大件路文星段 168 号)



The exact location of conference venues:
Xinxing Theater (新星剧场) and Huizhi Building (慧智楼)



The exact location of Museum of Southwest Minzu University (Local Tour, Optional)

Campus: Southwest Minzu University - Wuhou Campus

(西南民族大学武侯校区)

Address: No. 16, South Section 4, First Ring Road, Wuhou District, Chengdu

(成都市武侯区一环路南四段 16 号)



NOTES

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Business Intelligence Society, Chinese Academy of Management



天府大数据国际战略与技术研究院

Tianfu Institute of International Big Strategy and Technology